Author Index

Aert, H.v., see Jongsma, T. 37

Akopyants, Y.G., Borisenkova, S.A., Kaliya, O.L., Derkacheva, V.M. and Lukyanets, E.A.
Synthesis and characterization of cobalt phthalocyanines covalently attached to silica 1

Arroyo, M., Moreno, J.Ma. and Sinisterra, J.V.
Immobilisation/stabilisation on different hydroxilic supports of lipase from *Candida rugosa* 261

Bacon, A.D., see Browning, A.F. L11

Baekelandt, B.G., see Kazansky, V.B. 135

Beaudry, W.T., Wagner, G.W. and Richard Ward, J.
Characterization of the molecular exchange process observed for dimethyl methylphosphonate adsorbed on a sorptive/reactive resin mixture by ^{31}P magnetization-transfer and 2-D exchange MAS NMR 183

Beck, I.E., Gusevskaya, E.V., Golovin, A.V. and Likholobov, V.A.
Oxidation of cycloalkenes and methylenecycloalkanes by palladium(II) complexes. Part I. NMR study on the mechanism of the formation of ring-contracted and ring-opened products in the oxidation of 1-methylcyclobutene 287

Beck, I.E., Gusevskaya, E.V., Golovin, A.V. and Likholobov, V.A.
Oxidation of cycloalkenes and methylenecycloalkanes by palladium(II) complexes. Part 2. NMR study on the mechanism of the ring expansion of methylenecyclobutane 301

Bianchi, C.L., see Tollari, S. 311

Bianchi, C.L., see Carli, R. 379

Bianchi, M., see Piacenti, F. 83

Bianchi, M., Bonchio, M., Conte, V., Coppa, F., Di Furia, F., Modena, G., Moro, S. and Standen, S.
Hydroxylation of aromatics with hydrogen peroxide catalyzed by vanadium(V) peroxocomplexes 107

Bonchio, M., see Bianchi, M. 107

Bonev, Ch., see Kadinov, G. 157

Borisenkova, S.A., see Akopyants, Y.G. 1

Botteghi, C., Del Ponte, G. and Marchetti, C.
Synthesis of an optically active pheniramine by enantioselective hydrogenation catalysed by BINAP–ruthenium(II) complexes 1

Browning, A.F., Bacon, A.D., White, C. and Milner, D.J.
The beneficial effects of introducing sulphur substituents into hydroformylation substrates L11

Bruni, S., see Tollari, S. 311

Campestrini, S., Di Furia, F., Rossi, P., Torboli, A. and Valle, G.
Comparison of the relative efficiency of peroxomolybdenum complexes as oxidants of the alcoholic function 95

Carli, R., Bianchi, C.L., Giannantonio, R. and Ragaini, V.
Low temperature reduction of gallium in a Ga_2O_3/HZSM-5 catalyst 379

Challa, G., see Jongsma, T. 17

Challa, G., see Jongsma, T. 37

Chocron, S. and Michman, M.
The indirect anodic oxidation of 2-methylnaphthalene Part II. Oxidation in presence of dichromates 251

Conte, V., see Bianchi, M. 107

Coppa, F., see Bianchi, M. 107

Crisafulli, C., Maggiore, R., Scirè, S., Galvagno, S. and Milone, C.
Bimetallic Ru–Cu/SiO_2 catalysts: effect of total surface area on the catalytic properties 237

Cvengrošová, Z., see Hronec, M. 75

De las Pozas, C., Lopez-Cordero, R., Gonzalez-Morales, J.A., Travieso, N. and Roque-Malherbe, R.
Effect of pore diameter and acid strength in ethanol dehydration on molecular sieves 145

Del Ponte, G., see Botteghi, C. 1

Derkacheva, V.M., see Akopyants, Y.G. 1

Di Furia, F., see Campestrini, S. 95

Di Furia, F., see Bianchi, M. 107

Dos Santos, E.N., Pittman, Jr., C.U. and

Toghiani, H.
Hydroformylation of α- and β-pinene catalyzed by rhodium and cobalt carbonyls 51
Filali Baba, M., see Mijoule, C. 367
Fossen, M., see Jongsma, T. 17
Fossen, M., see Jongsma, T. 37
Frediani, P., see Piacenti, F. 83
Fujii, Y., see Nishinaga, A. 117
Galvagno, S., see Crisafulli, C. 237
García-Cánovas, F., see Varón, R. 273
Garrido-del Solo, C., see Varón, R. 273
Giannantonio, R., see Carli, R. 379
Golovin, A.V., see Beck, I.E. 287
Golovin, A.V., see Beck, I.E. 301
Gonzalez-Morales, J.A., see De las Pozas, C. 145
Gusevskaya, E.V., see Beck, I.E. 287
Gusevskaya, E.V., see Beck, I.E. 301
Havsteen, B.H., see Varón, R. 273
Hayashi, H., Sugiyama, S., Katayama, Y., Sakai, K., Sugino, M. and Shigemoto, N.
Liquid-phase oxidation of ethyl lactate to pyruvate over suspended oxide catalysts 207
Hronec, M., Cvengrošová, Z. and Kizlink, J.
Competitive oxidation of alcohols in aqueous phase using Pd/C catalyst 75
Itoh, K., see Satoh, T. 125
Jongsma, T., Fossen, M., Challa, G. and Van Leeuwen, P.W.N.M.
Fine tuning of bulky-phosphite modified rhodium catalysts by binding them to copolymers 17
Jongsma, T., Aert, H.v., Fossen, M., Challa, G. and Van Leeuwen, P.W.N.M.
Stable silica-grafted polymer-bound bulky-phosphite modified rhodium hydroformylation catalysts 37
Jubert, A.H., see Pis Diez, R. 219
Kadinov, G., Bonev, Ch., Todorova, S., Palazov, A., Lietz, G. and Völter, J.
Infrared study of carbon monoxide adsorption and hydrogenation over Pd-Fe catalysts 157
Kaliya, O.L., see Akopyants, Y.G. 1
Katayama, Y., see Hayashi, H. 207
Kazansky, V.B., Mortier, W.J., Baekelandt, B.G. and Lievens, J.L.
Comparing homogeneous and heterogeneous acid catalysts by a density-functional based sensitivity analysis of their interaction with carbenium ions 135
Kizlink, J., see Hronec, M. 75
Klimov, O.V., see Talsi, E.P. 329
Kustov, L.M., see Xu, L.Q. 391
Lietz, G., see Kadinov, G. 157
Lievens, J.L., see Kazansky, V.B. 135
Likholobov, V.A., see Beck, I.E. 287
Likholobov, V.A., see Beck, I.E. 301
Lopez-Cordero, R., see De las Pozas, C. 145
Lukyanets, E.A., see Akopyants, Y.G. 1
Maggiore, R., see Crisafulli, C. 237
Marchetti, C., see Botteghi, C. 1
Mashino, T., see Nishinaga, A. 117
Matteoli, U., see Piacenti, F. 83
Menchi, G., see Piacenti, F. 83
Michman, M., see Chocron, S. 251
Mijoule, C., Filali Baba, M. and Russier, V.
Size effects on the binding energy calculation of atoms and molecules on magnetic transition metal clusters 367
Milner, D.J., see Browning, A.F. L11
Milone, C., see Crisafulli, C. 237
Miura, M., see Satoh, T. 125
Modena, G., see Bianchi, M. 107
Moreno, J.Ma., see Arroyo, M. 261
Moriyama, H., see Nishinaga, A. 117
Moro, S., see Bianchi, M. 107
Mortier, W.J., see Kazansky, V.B. 135
Mortreux, A., see Thoret-Bauchet, J.-P. 323
Nishinaga, A., Tsutsui, T., Moriyama, H., Wazaki, T., Mashino, T. and Fujii, Y.
Structural effect of cobalt Schiff base complex catalyst on its catalytic activity in dioxygenolysis of 3-methylindole 117
Nomura, M., see Satoh, T. 125
Okura, I., see Shimoda, M. 5
Otsuka, K., see Yamanaka, I. L15
Palazov, A., see Kadinov, G. 157
Petit, F., see Thoret-Bauchet, J.-P. 323
Piacenti, F., Bianchi, M., Frediani, P., Menchi, G. and Matteoli, U.
Carbonylation of alcohols to alkyl formates promoted by an alkyne/phosphine system 83
Pis Diez, R. and Jubert, A.H.
A molecular orbital picture of thiophene hydrodesulfurization. Part 2. Thiophene adsorption 219
Pittman, Jr., C.U., see Dos Santos, E.N. 51

Porta, F., see Tollari, S. 311
Ragaini, V., see Carli, R. 379
Rainoni, M., see Tollari, S. 311
Ram, R.N., see Shah, J.N. 67
Richard Ward, J., see Beaudry, W.T. 183
Roque-Malherbe, R., see De las Pozas, C. 145
Rossi, P., see Campestrini, S. 95
Russier, V., see Mijoule, C. 367
Sachtler, W.M.H., see Xu, L.Q. 391
Sakai, K., see Hayashi, H. 207
Satoh, T., Itoh, K., Miura, M. and Nomura, M.
Desulfonylation and desulfonylative carbonylation of arenethiosulfonic acid esters in the presence of $PdCl_2$ and LiCl 125
Scirè, S., see Crisafulli, C. 237
Seki, Y., see Shimoda, M. 5
Shah, J.N. and Ram, R.N.
Hydrogenation of cyclohexene using polymer-supported ruthenium (III) complexes as catalysts 67
Shalyaev, K.V., see Talsi, E.P. 347
Shigemoto, N., see Hayashi, H. 207
Shimoda, M., Seki, Y. and Okura, I.
Oxidation of halogenated propanes with *Methylosinus trichosporium* (OB3b) 5
Sinisterra, J.V., see Arroyo, M. 261
Standen, S., see Bianchi, M. 107
Sugino, M., see Hayashi, H. 207
Sugiyama, S., see Hayashi, H. 207
Talsi, E.P., Klimov, O.V. and Zamaraev, K.I.
Characterization with ^{95}Mo, ^{17}O, ^{1}H NMR and EPR of alkylperoxo, alkoxo, peroxo and diolo molybdenum(VI) complexes formed in the course of catalytic epoxidation of cyclohexene with organic hydroperoxides 329
Talsi, E.P., Shalyaev, K.V. and Zamaraev, K.I.
^{17}O, ^{95}Mo and ^{1}H NMR study of the mechanism of epoxidation of alkenes with hydrogen peroxide in the presence of molybdenum complexes 347
Thoret-Bauchet, J.-P., Mortreux, A. and Petit, F.
Comparison of acidic against redox properties of the $CuAl_2Cl_8$ complex during the isomerization of alkanes at ambient temperature 323
Todorova, S., see Kadinov, G. 157
Toghiani, H., see Dos Santos, E.N. 51
Tollari, S., Bruni, S., Bianchi, C.L., Rainoni, M. and Porta, F.
Oxidation of primary benzylic amines by $Mo(O)(O_2)_2(H_2O)$(HMPA) 311
Torboli, A., see Campestrini, S. 95
Toshima, N., see Yonezawa, T. 167
Travieso, N., see De las Pozas, C. 145
Tsutsui, T., see Nishinaga, A. 117
Valero, E., see Varón, R. 273
Valle, G., see Campestrini, S. 95
Van Leeuwen, P.W.N.M., see Jongsma, T. 17
Van Leeuwen, P.W.N.M., see Jongsma, T. 37
Varón, R., Valero, E., Garrido-del Solo, C., García-Cánovas, F. and Havsteen, B.H.
Kinetic analysis of a Michaelis–Menten mechanism with an unstable substrate 273
Völter, J., see Kadinov, G. 157
Wagner, G.W., see Beaudry, W.T. 183
Wazaki, T., see Nishinaga, A. 117
White, C., see Browning, A.F. L11
Xu, L.Q., Zholobenko, V.L., Kustov, L.M. and Sachtler, W.M.H.
Spontaneous formation of $Fe(CO)_5$ from CO and the steel walls of an FTIR cell 391
Yamanaka, I. and Otsuka, K.
Cyclohexane oxidation with dioxygen catalyzed by samarium(III) L15
Yonezawa, T. and Toshima, N.
Polymer- and micelle-protected gold/platinum bimetallic systems. Preparation, application to catalysis for visible-light-induced hydrogen evolution, and analysis of formation process with optical methods 167
Zamaraev, K.I., see Talsi, E.P. 329
Zamaraev, K.I., see Talsi, E.P. 347
Zholobenko, V.L., see Xu, L.Q. 391
Zieliński, J.
Effect of alumina on the reduction of surface nickel oxide; morphology of the surfaces of the surfaces of Ni/Al_2O_3 catalysts 197

Subject Index

acid catalyst
Comparing homogeneous and heterogeneous acid catalysts by a density-functional based sensitivity analysis of their interaction with carbenium ions 135
acid strength
Effect of pore diameter and acid strength in ethanol dehydration on molecular sieves 145
activated hydrogen
Low temperature reduction of gallium in a Ga_2O_3/HZSM-5 catalyst 379
alcohol carbonylation
Carbonylation of alcohols to alkyl formates promoted by an alkyne/phosphine system 83
alcohol dehydrogenase
Oxidation of halogenated propanes with *Methylosinus trichosporium* (OB3b) 5
alcoholic function
Comparison of the relative efficiency of peroxomolybdenum complexes as oxidants of the alcoholic function 95
alcohol oxidation
Competitive oxidation of alcohols in aqueous phase using Pd/C catalyst 75
alkylperoxo complexes
Characterization with ^{95}Mo, ^{17}O, ^{1}H NMR and EPR of alkylperoxo, alkoxo, peroxo and diolo molybdenum(VI) complexes formed in the course of catalytic epoxidation of cyclohexene with organic hydroperoxides 329
amines
Oxidation of primary benzylic amines by $Mo(O)(O_2)_2(H_2O)$(HMPA) 311
arenethiosulphonic acid esters
Desulfonylation and desulfonylative carbonylation of arenethiosulfonic acid esters in the presence of $PdCl_2$ and LiCl 125
aromatics
Hydroxylation of aromatics with hydrogen peroxide catalyzed by vanadium(V) peroxocomplexes 107
asymmetric hydrogenation
Synthesis of an optically active pheniramine by enantioselective hydrogenation catalysed by BINAP–ruthenium(II) complexes 1
bacterial oxidation
Oxidation of halogenated propanes with *Methylosinus trichosporium* (OB3b) 5
benzylic amines
Oxidation of primary benzylic amines by $Mo(O)(O_2)_2(H_2O)$(HMPA) 311
bimetallic catalysts
Bimetallic Ru–Cu/SiO_2 catalysts: effect of total surface area on the catalytic properties 237
bimetallic systems
Polymer- and micelle-protected gold/platinum bimetallic systems. Preparation, application to catalysis for visible-light-induced hydrogen evolution, and analysis of formation process with optical methods 167
binding energy
Size effects on the binding energy calculation of atoms and molecules on magnetic transition metal clusters 367
Candida rugosa
Immobilisation/stabilisation on different hydroxilic supports of lipase from *Candida rugosa* 261
carbenium ions
Comparing homogeneous and heterogeneous acid catalysts by a density-functional based sensitivity analysis of their interaction with carbenium ions 135
carbon monoxide
Spontaneous formation of $Fe(CO)_5$ from CO and the steel walls of an FTIR cell 391
carbon monoxide adsorption
Infrared study of carbon monoxide adsorption and hydrogenation over Pd–Fe catalysts 157
carbon monoxide hydrogenation
Infrared study of carbon monoxide adsorption and hydrogenation over Pd–Fe catalysts 157
carbonylation
Desulfonylation and desulfonylative carbonylation of arenethiosulfonic acid esters

in the presence of $PdCl_2$ and LiCl 125
catalysis
The beneficial effects of introducing sulphur substituents into hydroformylation substrates L11
catalytic aromatic hydroxylation
Hydroxylation of aromatics with hydrogen peroxide catalyzed by vanadium(V) peroxocomplexes 107
chiral antihistaminic agents
Synthesis of an optically active pheniramine by enantioselective hydrogenation catalysed by BINAP–ruthenium(II) complexes 1
cobalt
Structural effect of cobalt Schiff base complex catalyst on its catalytic activity in dioxygenolysis of 3-methylindole 117
cobalt carbonyl
Hydroformylation of α- and β-pinene catalyzed by rhodium and cobalt carbonyls 51
cobalt phthalocyanine
Synthesis and characterization of cobalt phthalocyanines covalently attached to silica 1
copper
Bimetallic Ru–Cu/SiO_2 catalysts: effect of total surface area on the catalytic properties 237
copper(II) chloroaluminate
Comparison of acidic against redox properties of the $CuAl_2Cl_8$ complex during the isomerization of alkanes at ambient temperature 323
cycloalkene oxidation
Oxidation of cycloalkenes and methylenecycloalkanes by palladium(II) complexes. Part I. NMR study on the mechanism of the formation of ring-contracted and ring-opened products in the oxidation of 1-methylcyclobutene 287
Oxidation of cycloalkenes and methylenecycloalkanes by palladium(II) complexes. Part 2. NMR study on the mechanism of the ring expansion of methylenecyclobutane 301
cyclohexane
Comparison of acidic against redox properties of the $CuAl_2Cl_8$ complex during the isomerization of alkanes at ambient temperature 323
cyclohexane oxidation
Cyclohexane oxidation with dioxygen catalyzed by samarium(III) L15
cyclohexene
^{17}O, ^{95}Mo and ^{1}H NMR study of the mechanism of epoxidation of alkenes with hydrogen peroxide in the presence of molybdenum complexes 347
cyclohexene hydrogenation
Hydrogenation of cyclohexene using polymer-supported ruthenium (III) complexes as catalysts 67
cysteine autoxidation
Synthesis and characterization of cobalt phthalocyanines covalently attached to silica 1
desulphonation
Desulfonylation and desulfonylative carbonylation of arenethiosulfonic acid esters in the presence of $PdCl_2$ and LiCl 125
dichromate
The indirect anodic oxidation of 2-methylnaphthalene Part II.* Oxidation in presence of dichromates 251
dimethyl methylphosphonate
Characterization of the molecular exchange process observed for dimethyl methylphosphonate adsorbed on a sorptive/reactive resin mixture by ^{31}P magnetization-transfer and 2-D exchange MAS NMR 183
dioxygenase reaction model
Structural effect of cobalt Schiff base complex catalyst on its catalytic activity in dioxygenolysis of 3-methylindole 117
electronegativity equalization
Comparing homogeneous and heterogeneous acid catalysts by a density-functional based sensitivity analysis of their interaction with carbenium ions 135
electrooxidation
The indirect anodic oxidation of 2-methylnaphthalene Part II.* Oxidation in presence of dichromates 251
enzyme immobilization
Immobilisation/stabilisation on different hydroxilic supports of lipase from *Candida rugosa* 261
enzyme kinetics

Kinetic analysis of a Michaelis–Menten mechanism with an unstable substrate 273
epoxidation
Characterization with ^{95}Mo, ^{17}O, ^{1}H NMR and EPR of alkylperoxo, alkoxo, peroxo and diolo molybdenum(VI) complexes formed in the course of catalytic epoxidation of cyclohexene with organic hydroperoxides 329
^{17}O, ^{95}Mo and ^{1}H NMR study of the mechanism of epoxidation of alkenes with hydrogen peroxide in the presence of molybdenum complexes 347
EPR
Characterization with ^{95}Mo, ^{17}O, ^{1}H NMR and EPR of alkylperoxo, alkoxo, peroxo and diolo molybdenum(VI) complexes formed in the course of catalytic epoxidation of cyclohexene with organic hydroperoxides 329
ethanol dehydration
Effect of pore diameter and acid strength in ethanol dehydration on molecular sieves 145
ethyl lactate
Liquid-phase oxidation of ethyl lactate to pyruvate over suspended oxide catalysts 207
ethyl pyruvate
Liquid-phase oxidation of ethyl lactate to pyruvate over suspended oxide catalysts 207
formates
Carbonylation of alcohols to alkyl formates promoted by an alkyne/phosphine system 83
formylpinenes
Hydroformylation of α- and β-pinene catalyzed by rhodium and cobalt carbonyls 51
FTIR spectroscopy
Spontaneous formation of $Fe(CO)_5$ from CO and the steel walls of an FTIR cell 391
gallium oxidation state
Low temperature reduction of gallium in a Ga_2O_3/HZSM-5 catalyst 379
gold
Polymer- and micelle-protected gold/platinum bimetallic systems. Preparation, application to catalysis for visible-light-induced hydrogen evolution, and analysis of formation process with optical methods 167
haloalkane oxidation
Oxidation of halogenated propanes with *Methylosinus trichosporium* (OB3b) 5
heterogeneous catalysis
Comparing homogeneous and heterogeneous acid catalysts by a density-functional based sensitivity analysis of their interaction with carbenium ions 135
^{1}H NMR
Characterization with ^{95}Mo, ^{17}O, ^{1}H NMR and EPR of alkylperoxo, alkoxo, peroxo and diolo molybdenum(VI) complexes formed in the course of catalytic epoxidation of cyclohexene with organic hydroperoxides 329
^{1}H NMR spectroscopy
^{17}O, ^{95}Mo and ^{1}H NMR study of the mechanism of epoxidation of alkenes with hydrogen peroxide in the presence of molybdenum complexes 347
homogeneous catalysis
Comparing homogeneous and heterogeneous acid catalysts by a density-functional based sensitivity analysis of their interaction with carbenium ions 135
hydrodesulphurization
A molecular orbital picture of thiophene hydrodesulfurization. Part 2. Thiophene adsorption 219
hydroformylation
The beneficial effects of introducing sulphur substituents into hydroformylation substrates L11
Fine tuning of bulky-phosphite modified rhodium catalysts by binding them to copolymers 17
Stable silica-grafted polymer-bound bulky-phosphite modified rhodium hydroformylation catalysts 37
Hydroformylation of α- and β-pinene catalyzed by rhodium and cobalt carbonyls 51
hydrogenation
Hydroformylation of α- and β-pinene catalyzed by rhodium and cobalt carbonyls 51
hydrogen evolution

Polymer- and micelle-protected gold/platinum bimetallic systems. Preparation, application to catalysis for visible-light-induced hydrogen evolution, and analysis of formation process with optical methods 167
hydrogenolysis
Bimetallic Ru–Cu/SiO_2 catalysts: effect of total surface area on the catalytic properties 237
hydrogen peroxide
^{17}O, ^{95}Mo and ^{1}H NMR study of the mechanism of epoxidation of alkenes with hydrogen peroxide in the presence of molybdenum complexes 347
hydroperoxides
Characterization with ^{95}Mo, ^{17}O, ^{1}H NMR and EPR of alkylperoxo, alkoxo, peroxo and diolo molybdenum(VI) complexes formed in the course of catalytic epoxidation of cyclohexene with organic hydroperoxides 329
hydroxylation
Hydroxylation of aromatics with hydrogen peroxide catalyzed by vanadium(V) peroxocomplexes 107
indole oxidation
Structural effect of cobalt Schiff base complex catalyst on its catalytic activity in dioxygenolysis of 3-methylindole 117
in situ reduction
Low temperature reduction of gallium in a Ga_2O_3/HZSM-5 catalyst 379
ion-exchange resin
Characterization of the molecular exchange process observed for dimethyl methylphosphonate adsorbed on a sorptive/reactive resin mixture by ^{31}P magnetization-transfer and 2-D exchange MAS NMR 183
iron pentacarbonyl
Spontaneous formation of $Fe(CO)_5$ from CO and the steel walls of an FTIR cell 391
IR spectroscopy
Infrared study of carbon monoxide adsorption and hydrogenation over Pd–Fe catalysts 157
isomerization
Comparison of acidic against redox properties of the $CuAl_2Cl_8$ complex during the isomerization of alkanes at ambient temperature 323
kinetic data
Kinetic analysis of a Michaelis–Menten mechanism with an unstable substrate 273
lethal agent decontamination
Characterization of the molecular exchange process observed for dimethyl methylphosphonate adsorbed on a sorptive/reactive resin mixture by ^{31}P magnetization-transfer and 2-D exchange MAS NMR 183
lipase
Immobilisation/stabilisation on different hydroxilic supports of lipase from *Candida rugosa* 261
liquid-phase oxidation
Competitive oxidation of alcohols in aqueous phase using Pd/C catalyst 75
Liquid-phase oxidation of ethyl lactate to pyruvate over suspended oxide catalysts 207
lithium chloride
Desulfonylation and desulfonylative carbonylation of arenethiosulfonic acid esters in the presence of $PdCl_2$ and LiCl 125
magic-angle spinning NMR
Characterization of the molecular exchange process observed for dimethyl methylphosphonate adsorbed on a sorptive/reactive resin mixture by ^{31}P magnetization-transfer and 2-D exchange MAS NMR 183
magnetic transition
Size effects on the binding energy calculation of atoms and molecules on magnetic transition metal clusters 367
metal cluster
Polymer- and micelle-protected gold/platinum bimetallic systems. Preparation, application to catalysis for visible-light-induced hydrogen evolution, and analysis of formation process with optical methods 167
metal clusters
Size effects on the binding energy calculation of atoms and molecules on magnetic transition metal clusters 367
metal colloid
Polymer- and micelle-protected gold/plat-

inum bimetallic systems. Preparation, application to catalysis for visible-light-induced hydrogen evolution, and analysis of formation process with optical methods 167
methane monooxy-genase
Oxidation of halogenated propanes with *Methylosinus trichosporium* (OB3b) 5
methylcyclobutene
Oxidation of cycloalkenes and methylenecycloalkanes by palladium(II) complexes. Part I. NMR study on the mechanism of the formation of ring-contracted and ring-opened products in the oxidation of 1-methylcyclobutene 287
methylcyclopentane
Comparison of acidic against redox properties of the $CuAl_2Cl_8$ complex during the isomerization of alkanes at ambient temperature 323
methylenecycloalkanes
Oxidation of cycloalkenes and methylenecycloalkanes by palladium(II) complexes. Part I. NMR study on the mechanism of the formation of ring-contracted and ring-opened products in the oxidation of 1-methylcyclobutene 287
methylenecyclobutane
Oxidation of cycloalkenes and methylenecycloalkanes by palladium(II) complexes. Part 2. NMR study on the mechanism of the ring expansion of methylenecyclobutane 301
2-methylnaphthalene
The indirect anodic oxidation of 2-methylnaphthalene Part II.* Oxidation in presence of dichromates 251
2-methyl-napththoquinone
The indirect anodic oxidation of 2-methylnaphthalene Part II.* Oxidation in presence of dichromates 251
Methylosinus trichosporium
Oxidation of halogenated propanes with *Methylosinus trichosporium* (OB3b) 5
micelle-protected bimetallic clusters
Polymer- and micelle-protected gold/platinum bimetallic systems. Preparation, application to catalysis for visible-light-induced hydrogen evolution, and analysis of formation process with optical methods 167
mixed metal clusters
Hydroformylation of α- and β-pinene catalyzed by rhodium and cobalt carbonyls 51
molecular exchange
Characterization of the molecular exchange process observed for dimethyl methylphosphonate adsorbed on a sorptive/reactive resin mixture by ^{31}P magnetization-transfer and 2-D exchange MAS NMR 183
molecular orbital calculations
A molecular orbital picture of thiophene hydrodesulfurization. Part 2. Thiophene adsorption 219
molecular sieves
Effect of pore diameter and acid strength in ethanol dehydration on molecular sieves 145
molybdenum
Oxidation of primary benzylic amines by $Mo(O)(O_2)_2(H_2O)$(HMPA) 311
Characterization with ^{95}Mo, ^{17}O, ^{1}H NMR and EPR of alkylperoxo, alkoxo, peroxo and diolo molybdenum(VI) complexes formed in the course of catalytic epoxidation of cyclohexene with organic hydroperoxides 329
^{17}O, ^{95}Mo and ^{1}H NMR study of the mechanism of epoxidation of alkenes with hydrogen peroxide in the presence of molybdenum complexes 347
molybdenum disulphide
A molecular orbital picture of thiophene hydrodesulfurization. Part 2. Thiophene adsorption 219
^{95}Mo NMR
Characterization with ^{95}Mo, ^{17}O, ^{1}H NMR and EPR of alkylperoxo, alkoxo, peroxo and diolo molybdenum(VI) complexes formed in the course of catalytic epoxidation of cyclohexene with organic hydroperoxides 329
^{95}Mo NMR spectroscopy
^{17}O, ^{95}Mo and ^{1}H NMR study of the mechanism of epoxidation of alkenes with hydrogen peroxide in the presence of molybdenum complexes 347
morphology of Ni/Al_2O_3
Effect of alumina on the reduction of surface nickel oxide; morphology of the sur-

faces of the surfaces of Ni/Al_2O_3 catalysts 197
naphthalene
The indirect anodic oxidation of 2-methylnaphthalene Part II.* Oxidation in presence of dichromates 251
numerical integration
Kinetic analysis of a Michaelis–Menten mechanism with an unstable substrate 273
olefin oxidation
Oxidation of primary benzylic amines by $Mo(O)(O_2)_2(H_2O)$(HMPA) 311
^{17}O NMR
Characterization with ^{95}Mo, ^{17}O, ^1H NMR and EPR of alkylperoxo, alkoxo, peroxo and diolo molybdenum(VI) complexes formed in the course of catalytic epoxidation of cyclohexene with organic hydroperoxides 329
^{17}O NMR spectroscopy
^{17}O, ^{95}Mo and ^1H NMR study of the mechanism of epoxidation of alkenes with hydrogen peroxide in the presence of molybdenum complexes 347
oxidation
Comparison of the relative efficiency of peroxomolybdenum complexes as oxidants of the alcoholic function 95
The indirect anodic oxidation of 2-methylnaphthalene Part II.* Oxidation in presence of dichromates 251
Oxidation of cycloalkenes and methylenecycloalkanes by palladium(II) complexes. Part I. NMR study on the mechanism of the formation of ring-contracted and ring-opened products in the oxidation of 1-methylcyclobutene 287
Oxidation of cycloalkenes and methylenecycloalkanes by palladium(II) complexes. Part 2. NMR study on the mechanism of the ring expansion of methylenecyclobutane 301
oxide catalyst
Liquid-phase oxidation of ethyl lactate to pyruvate over suspended oxide catalysts 207
oxygenation
Structural effect of cobalt Schiff base complex catalyst on its catalytic activity in dioxygenolysis of 3-methylindole 117
palladium
Desulfonylation and desulfonylative carbonylation of arenethiosulfonic acid esters in the presence of $PdCl_2$ and LiCl 125
Oxidation of cycloalkenes and methylenecycloalkanes by palladium(II) complexes. Part I. NMR study on the mechanism of the formation of ring-contracted and ring-opened products in the oxidation of 1-methylcyclobutene 287
Oxidation of cycloalkenes and methylenecycloalkanes by palladium(II) complexes. Part 2. NMR study on the mechanism of the ring expansion of methylenecyclobutane 301
palladium-carbon catalyst
Competitive oxidation of alcohols in aqueous phase using Pd/C catalyst 75
parallel oxidation
Comparison of acidic against redox properties of the $CuAl_2Cl_8$ complex during the isomerization of alkanes at ambient temperature 323
Pd catalysts
Infrared study of carbon monoxide adsorption and hydrogenation over Pd–Fe catalysts 157
Pd–Fe catalysts
Infrared study of carbon monoxide adsorption and hydrogenation over Pd–Fe catalysts 157
peroxocomplexes
Hydroxylation of aromatics with hydrogen peroxide catalyzed by vanadium(V) peroxocomplexes 107
^{17}O, ^{95}Mo and ^1H NMR study of the mechanism of epoxidation of alkenes with hydrogen peroxide in the presence of molybdenum complexes 347
peroxomolybdenum complexes
Comparison of the relative efficiency of peroxomolybdenum complexes as oxidants of the alcoholic function 95
peroxymolybdenum complexes
Oxidation of primary benzylic amines by $Mo(O)(O_2)_2(H_2O)$(HMPA) 311
phosphine–alkyne catalyst
Carbonylation of alcohols to alkyl formates promoted by an alkyne/phosphine system 83
phosphines

Hydroformylation of α- and β-pinene catalyzed by rhodium and cobalt carbonyls 51
phosphites
Fine tuning of bulky-phosphite modified rhodium catalysts by binding them to copolymers 17
Stable silica-grafted polymer-bound bulky-phosphite modified rhodium hydroformylation catalysts 37
Hydroformylation of α- and β-pinene catalyzed by rhodium and cobalt carbonyls 51
pinenes
Hydroformylation of α- and β-pinene catalyzed by rhodium and cobalt carbonyls 51
platinum
Polymer- and micelle-protected gold/platinum bimetallic systems. Preparation, application to catalysis for visible-light-induced hydrogen evolution, and analysis of formation process with optical methods 167
^{31}P NMR
Characterization of the molecular exchange process observed for dimethyl methylphosphonate adsorbed on a sorptive/reactive resin mixture by ^{31}P magnetization-transfer and 2-D exchange MAS NMR 183
polymer-bound catalysts
Fine tuning of bulky-phosphite modified rhodium catalysts by binding them to copolymers 17
Stable silica-grafted polymer-bound bulky-phosphite modified rhodium hydroformylation catalysts 37
polymer-protected bimetallic clusters
Polymer- and micelle-protected gold/platinum bimetallic systems. Preparation, application to catalysis for visible-light-induced hydrogen evolution, and analysis of formation process with optical methods 167
polymer-supported catalyst
Hydrogenation of cyclohexene using polymer-supported ruthenium (III) complexes as catalysts 67
pore diameter
Effect of pore diameter and acid strength in ethanol dehydration on molecular sieves 145
reductively activated oxygen
Cyclohexane oxidation with dioxygen catalyzed by samarium(III) L15
rhodium
The beneficial effects of introducing sulphur substituents into hydroformylation substrates L11
Fine tuning of bulky-phosphite modified rhodium catalysts by binding them to copolymers 17
Stable silica-grafted polymer-bound bulky-phosphite modified rhodium hydroformylation catalysts 37
rhodium carbonyl
Hydroformylation of α- and β-pinene catalyzed by rhodium and cobalt carbonyls 51
(*R*)(−)-pheniramine
Synthesis of an optically active pheniramine by enantioselective hydrogenation catalysed by BINAP–ruthenium(II) complexes 1
ruthenium
Bimetallic Ru–Cu/SiO_2 catalysts: effect of total surface area on the catalytic properties 237
ruthenium carbonyl
Hydroformylation of α- and β-pinene catalyzed by rhodium and cobalt carbonyls 51
ruthenium chloride
The indirect anodic oxidation of 2-methylnaphthalene Part II.* Oxidation in presence of dichromates 251
ruthenium(III)
Hydrogenation of cyclohexene using polymer-supported ruthenium (III) complexes as catalysts 67
samarium(III)
Cyclohexane oxidation with dioxygen catalyzed by samarium(III) L15
Schiff base complexes
Structural effect of cobalt Schiff base complex catalyst on its catalytic activity in dioxygenolysis of 3-methylindole 117
selective oxygenation
Cyclohexane oxidation with dioxygen catalyzed by samarium(III) L15
sensitivity analysis

Comparing homogeneous and heterogeneous acid catalysts by a density-functional based sensitivity analysis of their interaction with carbenium ions 135
silica support
Synthesis and characterization of cobalt phthalocyanines covalently attached to silica 1
size effects
Size effects on the binding energy calculation of atoms and molecules on magnetic transition metal clusters 367
steel-walled cells
Spontaneous formation of $Fe(CO)_5$ from CO and the steel walls of an FTIR cell 391
sulphur
The beneficial effects of introducing sulphur substituents into hydroformylation substrates L11
surface area
Bimetallic Ru–Cu/SiO_2 catalysts: effect of total surface area on the catalytic properties 237
surface nickel oxide
Effect of alumina on the reduction of surface nickel oxide; morphology of the surfaces of the surfaces of Ni/Al_2O_3 catalysts 197
temperature-programmed reduction
Effect of alumina on the reduction of surface nickel oxide; morphology of the surfaces of the surfaces of Ni/Al_2O_3 catalysts 197
thioalkenes
The beneficial effects of introducing sulphur substituents into hydroformylation substrates L11
thiophene adsorption
A molecular orbital picture of thiophene hydrodesulfurization. Part 2. Thiophene adsorption 219
transient phase
Kinetic analysis of a Michaelis–Menten mechanism with an unstable substrate 273
two-phase oxidations
Hydroxylation of aromatics with hydrogen peroxide catalyzed by vanadium(V) peroxocomplexes 107
unstable substrate
Kinetic analysis of a Michaelis–Menten mechanism with an unstable substrate 273
vanadium peroxocomplexes
Hydroxylation of aromatics with hydrogen peroxide catalyzed by vanadium(V) peroxocomplexes 107
XPS measurements
Low temperature reduction of gallium in a Ga_2O_3/HZSM-5 catalyst 379
zeolites
Spontaneous formation of $Fe(CO)_5$ from CO and the steel walls of an FTIR cell 391